

PATENT CLAIMS

1. A scale (1) having a scale housing (3) serving for housing the weighing mechanism and the weighing electronics, that stands on a support base on at least three support points (5, 5'), comprising a display and operating unit (6), which is designed to be connectable to and disconnectable from the scale (1), wherein a connection element (9) is provided to produce a mechanical coupling between the scale (1) and the display and operating unit (6), characterized in that the connection element (9) is attachable to the bottom of the scale housing (3) and is designed to be supported on at least two support points (5) of the scale (1) and can be engaged in a self-locating way in a third point (13) on the bottom side of the scale housing (3).
2. The scale according to claim 1, characterized in that the connection element (9) is designed for a tool-free attachment and removal of the display and operating unit (6) to and from the scale housing (3).
3. The scale according to claim 1 or 2, characterized in that a coupling part (13), in which the connection element (9) engages in a self-centering way, is positioned on the bottom side of the scale housing (3).
4. The scale according to claim 3, characterized in that the coupling part (13) is attached to the bottom side of the scale housing (3) close to the third support point (5').
5. The scale according to claim 3 or 4, characterized in that the coupling part (13) has the form of two

equilateral triangles which are connected to each other, the first triangle (18) representing an acute-angled triangle and the second triangle, that faces towards the connection element (9) in the installed state, representing an obtuse-angled triangle (19).

6. The scale according to claim 3, 4, or 5, characterized in that the coupling part (13) comprises elastic catch elements (21) having bulges (26), which are formed to engage in recesses (29) of the connection element (9).
7. The scale according to one of the claims 1 to 6, characterized in that the connection element (9), is designed to be very flat, and is manufactured from an approximately 0.5 to 2 mm thick sheet of aluminium or a sheet of steel or as a plastic part.
8. The scale according to one of the claims 1 to 7, characterized in that each of the two support points (5) comprising a wheel (11) for the adjustment to level the scale (1) and that the connection element (9) is supported on the top of a wheel (11).
9. The scale according to one of the claims 1 to 8, characterized in that the connection element (9) is designed to be oriented in the installed state parallel to the support base of the scale (1) up to approximately the area of the support point (5) and subsequently is bent by an angle  $\alpha$  in the direction towards the coupling part (13) in order to provide simple engagement with the coupling part (13).
10. The scale according to one of the claims 1 to 9, characterized in that the display and operating unit (6)

and the scale (1) stand on the support base independently from each other.

11. The scale according to one of the claims 1 to 10, further comprising a guide groove (16) on the bottom side of the scale housing (3) for the guidance of unneeded cable length of the connection cable between the scale (1) and the display and operating unit (6).
12. The scale according to one of the claims 1 to 11, characterized in that the scale housing (3) has recessed grips (24) on both sides.